

## LEAF LETTUCE CULTIVAR EVALUATION TRIALS - 1997

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## TABLE OF CONTENTS

	Page
<b>Lettuce Cultivar Trial 1997</b>	
<b>Objective</b>	<b>1</b>
<b>Methods</b>	<b>1</b>
<b>Results</b>	
<b>Boston Lettuce</b>	<b>1</b>
<b>Green and Red Leaf Lettuce</b>	<b>1</b>
<b>Romaine Lettuce</b>	<b>2</b>
<b>Escarole and Endive</b>	<b>2</b>
<b>Table 1. Boston Cultivar Trial</b>	<b>3</b>
<b>Table 2. Green Leaf Cultivar Trial</b>	<b>4</b>
<b>Table 3. Red Leaf Cultivar Trial</b>	<b>5</b>
<b>Table 4. Romaine Cultivar Trial</b>	<b>6</b>
<b>Table 5. Escarole Cultivar Trial</b>	<b>7</b>
<b>Table 6. Endive Cultivar Trial</b>	<b>8</b>

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Lettuce Cultivar Trial 1997  
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**Objective:** Evaluate the potential for new and improved cultivar or breeding lines for commercial production on the muck soils of Northern Ohio.

**Methods** Seed requests were solicited from seed companies late in February for entry in this trial. From those requests we received 14 entries for Boston, 13 entries for Green Leaf, 18 entries for red leaf, 21 entries for Romaine, 11 entries for Escarole, and 12 entries for endive. All entries were seeded in the greenhouse May 1, 1997 using a Landmark 288 square deep tray and metro mix 360 as a growing media. Once plants had germinated and established the first true leaf a continuous fertilizer program was begun using Peter liquid fertilizer (15-16-17) at the rate of 50 ppm. At the end of four week from seeding plants were removed form the tray and placed into baskets for transplanting in the field. Field preparation was done in early April. This consisted of field plowing (8" deep), broadcasting 800 lb (17-17-17) then disked in. Plots were then disked and flooded for final preparation just prior to transplanting. Transplanting was accomplished using a three row Old Made Holland base root transplanter. Plots consisted of three rows 20 ft long, replicated three times, randomly placed within the blocks. Plants were spaced twenty inches between rows and eight inches within the row. Pesticides were applied as needed to ensure weed, insect, and disease control. Irrigation was not applied except following transplanting where half an inch was used to ensure set. Harvesting consisted of ten heads from the middle row in each replication. Harvest time was determined according to lettuce type and size of plants. Weather conditions were thought to be on the cool side for the majority of the growing cycle. Therefore there appeared to be less heat stress than normal.

**Results:** Boston: Four cultivars are worthy of trial on a commercial scale; (Optiva, Balisto, Ermosa, Esmeralda) - Ermosa to perform the best in the trial with a consistent performance over the years.

Green Leaf: Four cultivars are worthy of trial on a commercial scale; Crisp N Green, Tiara, So Bolt, SVR 64289. With the exception of So Bolt, all cultivars are green to dark green in color and show tolerance to bolting and tip burn.

Red Leaf: Four cultivars are worthy of trial on a commercial scale; PS 69292, New Red Fire, Red Line, SVR 69292. Use caution when trialing these cultivars because of the intensity of red color. These cultivars are

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tolerant to bolting and show little tip burn.

Romaine: Five cultivars are worthy of trial on a commercial scale: Darkland, Ideal cos, Green tower, SVR 7640, Apache, Tall Gugmaine. The response to these cultivars to varying temperatures may be of concern. Use caution when trialing. The height and weight per head make this cultivar worthy of a second look.

Escarole: Five cultivars are worthy of commercial trial: Eros, NR 65, Ciarda, Stratego, Elisa. These are all large and heavy but still susceptible to burning in the center of the heads.

Endive: Five cultivars are worth of commercial trial: Tasos, Markant, Frisan, Cosma, Oxalie. These are also large, compact and heavy heads but still susceptible to burning in the center of the heads.

#### Acknowledgment

Thank you to the OVSFRDP for their financial support to this project.

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Table 1: Boston Cultivar Trial 1997

<b>Cultivar</b>	<b>Source</b>	<b>* Wt/ Crate lbs</b>	<b>Color 1=lt green 5=dk green</b>	<b>Brightness 1=dull 5=bright</b>	<b>Uniformity 1=poor 5=good</b>	<b>Tightness 1=loose 5=solid</b>	<b>Comments</b>
Redcross	Samen Mauser	22.00	red	3.5	3.5	1	Dull red, little head formation, no future
Margarita	Rispen	26.00	3	3	1	3	not very uniform within reps, not true to type, no future
Optima	Vilmorin	36.00	4	4	3	4	a lot of variation within head size, large size, alot of outside foliag no sign of leaf burn, possible future
Ermosa	Johnny's	31.00	3.5	3	4	4	dark green shinny heads, large heads with little extra foliage, no sign of leaf burn, possible future
Walter	Rijk Zwaan	32.00	3	3	3.5	2	loose head with little head formation, no future
Balisto	Rijk Zwaan	29.00	3	3	4	4	dark green small heads possible future
Baja	Asgrow	28.00	3	3	3.25	2	large but soft heads, looks as if this cultivar may need for time
Escort	Stokes	29.00	3.5	3	3	4	alot of burn on outer leaf margins, no future
Summer Green	Siegers	24.00	4	3	1	3.5	premature seeders, no future
Cortez	Harris Moran	31.00	2.5	3	3.25	3	light color, uniform head size but loose heads, questionable future
Tania	Haris Moran	29.00	2	3	2	3	light color, internal burning of heads, no future
Coronada	Haris Moran	26.00	2	3	4	3	light color, internal as well as outer leaf margin burning, some premature seeders, no future
Brovo	Siegers	35.00	3	3	2.5	3	internal head burning, nonuniform head formation, no future
Esmeralda	Wiers Farm Inc.	29.00	2	3	3.5	3.25	light color, uniform head formation, firm heads, heads have little external foliage, possible future

Seeded: May 1, 1997

Trannsplanted: May 29, 1997

Harvested: July 11, 1997

\* mean of three Replications, 24 heads per crate

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**Table 2: Green Leaf Cultivar Trial 1997**

<b>Cultivar</b>	<b>Source</b>	<b>* Wt/ Crate lbs.</b>	<b>Color 1=light 5=dark</b>	<b>Curly 1=flat 5=curly</b>	<b>Uniform 1=poor 5=good</b>	<b>Tightness 1=loose 5=solid</b>	<b>Comments</b>
Karif RZ	Rijk Zwaan	17.00	2	1	2.75	1	flat leaves, some curl
							tip burn looks like a head lettuce
<b>Crisp N' Green</b>	Rispens	27.00	3	4	4.25	3.25	growing flat, may be brittle, possible future
Green Hornet	Rispens	32.00	3	5	3.5	2.75	upright, starting to seed, no future
SEOUL Green	Siegers						100% seeders
<b>Tiara</b>	Asgrow	26.00	5	5	3.5	4.25	dark green, upright growth, large heads
							possible future
Two Star	Siegers	30.00	4.5	5	3.5	4.25	no size to plants, large leaves but flat
							no future
Krizet RZ	Rijk Zwaan	27.00	1	3	3	2.25	oak leaf type medium to small size
Desert Green	Asgrow	34.00	4	3	3	5	large leaves no curl, tip burn on leaves
							no future
Pybas Green M.T.	Pybas Seeds	27.00	3	5	5	2.75	seeders present, no future
<b>Slo Bolt M.I.</b>	Stokes	27.00	1	5	5	3.75	sight green to yellow color, upright growth.
							large plants, very curly, possible future
SVR 3127	Peto	27.00	5	4	4	3.25	small plants, flat growth pattern, tip burn in centers
							no future
<b>SVR 64289</b>	Peto	27.00	4	5	3.5	4	dark green, upright growth, small heads,
							questionable future size of heads may be in doubt
Waldman's #15	Siegers	33.00	4	5	3	3	seeders starting, upright, no future

seeded: May 1, 1997

Transplanted: May 29, 1997

Harvested July 11, 1997

\* mean of three Replications, 24 heads per crate

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Table 3: Red Leaf cultivar Trial 1997

<b>Cultivar</b>	<b>Source</b>	<b>* Wt/ Crate lbs</b>	<b>Color 1=lt red 5=dk red</b>	<b>Brightness 1=dull 5=bright</b>	<b>Uniformity 1=poor 5=good</b>	<b>Tightness 1=loose 5=solid</b>	<b>Comments</b>
Sesam	Rijk Zwaan	9.00	5	5	2	5	very small and compact, ornamental type
Winter Lattuchino	Samen Mauser	32.00	1	2	3.5	3	dark green with red tips to leaves, flat growth no future
<b>PS 69292</b>	Siegers	29.00	3	4	3	4	very similiar to red fire but smaller in size possible future
Red Fox	Rispens	33.00	2	5	3	4	more red in center than outer leaves, grows flat no future.
<b>New Red Fire</b>	American Takii	28.00	4	5	5	3	shinny red, very curly, upright growth, some green in side heads, possible future
Rossimo	Samen Mauser	24.00	5	5	3	3	dark red, upright growth, small heads, seeders possible, no future
Lovina	Samen Mauser	22.00	3	4	2	5	light red color, very curly, small heads, upright growth,
Selma Red Bowl	Samen Mauser	28.00	3	5	5	4	oak leaf type, loose heads, large plants, very uniform size
FM 2153	Siegers	38.00	1	1	3	4	more green than red, upright growth, loose heads some seeders, no future
Vulcan	Sakata		3	5	3		all seeders no future
Seoul Ruby	Siegers		2	5	4		all seeders no future
Cabernet Red	Asgrow	22.00	2	3	2	4	very little red, small heads big leaves, no future
Samantha	Johnnys	28.00	2	1	3	4	oakleaf type, dirty red color, small heads, no future
<b>Red Line</b>	Siegers	41.00	1	5	4	3	dark red with red tint to leaves, very curly, upright growth, possible future
Ruby Ruffles	Ferry-Morse	38.00	1	2	2	5	more green than red, loose heads, large plants seeders, no future
Red Tide	Asgrow	40.00	1	1	2	4	dark red with red tips on leaves, leaf curl outward no future
Red Giant	Asgrow	37.00	1	1	4	5	dirty red color, very little red, light heads no future
<b>SVR 69292</b>	Peto	30.00	3	5	4	2	light red color, plants are bigger than red fire but not as curly, possible future

Seeded : May 1, 1997

Transplanted: May 29, 1997

Harvested: July 11, 1997

\* mean of three Replications, 24 heads per crate

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**Table 4: Romaine Cultivar Trial 1997**

<b>Cultivar</b>	<b>Source</b>	<b>* Wt/ Crate lbs</b>	<b>Color 1=light 5=dark</b>	<b>Uniformity 1=poor 5=good</b>	<b>Growth 1=open 5=upright</b>	<b>Height inch</b>	<b>Comments</b>
9561	Harris Moran	32.00	4	4.5	5	13	doesn't seem to be very full edges of leaves burnt, no future
Medallion	Rispens	33.00	4	3	1	10	not very uniform, short, little head formation dusty green color
Mardi	Rispens	37.00	3	2.75	1	11.5	too short, grows open no future
Gladiato	Rispens	38.00	3	2.75	3	12	not very uniform head size grows open
<b>Darkland</b>	Rispens	40.00	4	4.5	5	13	uniform head size, tall, very heavy promising
XP200	Siegers	31.00	3	3	1	11	too short no weight
XP100	Siegers	36.00	3	3	1	11	not very tall but heavy, grows open
77939	Siegers	37.00	3	2.5	1	10	no future, too short & open burn on edges of leaves
<b>Ideal Cos</b>	Asgrow	38.00	3	4	3	15	big leaves, very heavy and tall plants promising future
Corsair	Johnny's	42.00	4	3.5	1	12	not very uniform head size tip burn on edges of leaves, no future
<b>Green Tower</b>	Haris Moran	41.00	3.5	4	5	13	heavy, dark green plants, tall promising future
PYBO 135	Pybas Seeds	34.00	2	3	1	12	may not have weight enough
GX800	Asgrow	31.00	red	3	5	12	very few cover leaves, not heavy enough
Nero	Asgrow	37.00	4	3.5	1	11	no height,
Romo	Asgrow	48.00	2	3.5	1	12	grows too open, seems to have no head formation
Red Eye	Asgrow	38.00	red	5	1	12	light red color, may be too short, nmay have promise
SVR 77393	Peto	27.00	3	2	1	10	grows open, very ununiform plant size
<b>SVR 7640</b>	Peto	44.00	2.5	2	1	12	curly leaf plant, very heavy, may grow to open
SVR 9800	Peto	38.00	3.5	3	1	10	too short, grows open
<b>Apache</b>	Siegers	43.00	3.5	4	5	13.5	very tall and heavy, looks promising
<b>Tall Guzmanne</b>	Buurma Farms	38.00	4	3.5	5	13	very tall and heavy, looks promising

Seeded May 1 1997

Transplanted: May 29, 1997

Harvested July 11 & 14, 1997

\* mean of three Replications, 24 heads per crate

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**Table 5: Escarole Cultivar Trial 1997**

<b>Cultivar</b>	<b>Source</b>	<b>* Wt/ Crate lbs</b>	<b>ollow Ste no/10</b>	<b>Color 1=light 5=dark</b>	<b>Uniformity 1=poor 5=good</b>	<b>Comments</b>
Bossa	Bejo	39.00	1	3	3	some seed stock formation
Eros	Bejo	33.00	3	3	3	grows upright, internal burning no sign of burn, speckling outer leaves, compact and solid, possible future
Perfect	Enza Zaden	37.00	2	2	4.5	seeders, burning in centers, no future
NR65	Pybas Seeds	35.00	0	3	3.25	tip burn on outer leaves, very large very nice, grows flat
Elisa	Rispens	37.00	0	3	2.75	heavy heads, some outer leaf speckling very big, looks nice
Ciarda	Enza Zaden	38.00	1	3	3.5	very large leaves, very big no seeders
E852	Enza Zaden	36.00	2	3	3	burn in center & outer leaves no future
Twinkle	Enza Zaden	34.00	3	4	3	going to seed burn & speckling in outer leaves no future
Nutrobrel	Enza Zaden	31.00	0	4	3.5	little burn in side, small and compact speckled outer leaves
Full Heart Batavian	Stokes	32.00	1	3.5	2	burn on edges, no real size outer leaves are speckled
Stratego	Paramount	35.00	0	3	2	very full, possible future some external burning of outer leaves

Seeded: May 1 1997

Transplanted: May 29, 1997

Harvested: July 21, 1997

\* mean of three Replications, 24 heads per crate

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**Table 6: Endive Cultivar Trial 1997**

<b>Cultivar</b>	<b>Source</b>	<b>* Wt/ Crate lbs</b>	<b>Hollow allow Ste no/10</b>	<b>Color 1=light 5=dark</b>	<b>Uniformity 1=poor 5=good</b>	<b>Comments</b>
<b>Tasos</b>	Bejo	31.00	1	3	3.5	excellent size, some burning on outer leaves
						Possible future
lone	Enza Zaden	20.00	0	2	3	novelty endive, yellow centers
						lot of burned leaves
Midori	Enza Zaden	30.00	1	2.5	4.25	going to seed, burn in centers
						very compact & small
<b>Markant</b>	Enza Zaden	38.00	2	4	5	little burn on outer lvs
						very large, possible future
Green Curled Ruff	Pybas Seeds	36.00	3	2.5	2	not very big
						lot of burn in centers & outer leaves
Wallone Monaco	Holthouse/Rijk Z	33.00	1	3	3	no real size, burning in outer leaves and centers
						no future
<b>Frisan</b>	Stokes	37.00	1	3.5	5	very little burn on outer leaves, very large heads
						very loose, speckling of outer lvs
Crispy Green	Harris Moran	32.00	1	3	3	no future, burning in outer leaves and inside head
						not very big
<b>Salad King</b>	Harris Moran	39.00	1	4	5	showing signs of seeders
						excellent size
Monaco	Paramount seed	29.00	2	2.5	3.75	no real size, no uniform plant size
						burn on outer lvs with speckling
<b>Cosma</b>	Paramount seed	34.00	1	3.5	5	very big, looks nice
						little burn on outer edges
<b>Oxalie</b>	Paramount seed	22.00	1	2	4	some burn on outer leaves but light ,small size
						centers are bleached out

Seeded: May 1 1997

Transplanted: May 29, 1997

Harvested: July 21, 1997

\* mean of three Replications, 24 heads per crate

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